

*CLAIM AMENDMENTS*

1.-20. (Cancelled)

21. (Currently Amended) A lipoxygenase from Cucumis sativus obtained in accordance with the method comprising the amino acid sequence of SEQ ID NO: 1 except that of claim 15 one or more amino acids in positions 527 to 536 and 593 to 602 of SEQ ID NO: 1 are substituted with a different amino acid.

22. (Cancelled)

23. (Currently Amended) The A lipoxygenase obtained in accordance with the method of claim 17 of claim 21, comprising a substitution at amino acid position 531 and/or 597 of SEQ ID NO: 1.

24. (Currently Amended) The A lipoxygenase obtained in accordance with the method of claim 18 of claim 23, wherein the amino acid at position 531 of SEQ ID NO: 1 is substituted with a Phe- or His- residue and/or the amino acid at position 597 of SEQ ID NO: 1 is substituted with a Val- or Phe- residue.

25. (Currently Amended) The A lipoxygenase obtained in accordance with the method of claim 19 of claim 24, wherein the amino acid at position 531 of SEQ ID NO: 1 is substituted with a Phe- residue and/or the amino acid at position 597 of SEQ ID NO: 1 is substituted with a Val- residue.

26.-46. (Cancelled)